Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. **(Cancel)**

2. **(Currently Amended)** ~~The method of claim 9,~~ A method for reducing the crest factor of a multi-carrier signal, the method comprising:

(a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby generating a transformed multi-carrier signal;

(b) defining a signal-to-be-corrected to be the transformed multi-carrier signal;

(c) generating a simulated output signal, wherein generating a simulated output signal comprises filtering the signal-to-be-corrected;

(d) estimating a signal maximum of the simulated output signal;

(e) deriving a first correction variable on the basis of the estimate;

(f) correcting the signal-to-be-corrected using at least the first correction variable, thereby generating a corrected output signal having a reduced crest factor;

(g) defining the corrected output signal to be the signal-to-be-corrected; and

(h) iteratively repeating steps (c) through (g) until the occurrence of a condition selected from the group consisting of causing the corrected output signal to have a crest factor below a predetermined threshold, and performing a predetermined number of iterations;

the method further comprising reducing a bit width of the transformed multi-carrier signal.

3. (Previously Presented) The method of claim **4**, further comprising temporarily storing the corrected output signal for use in a subsequent iteration step.

4. (Previously Presented) A method for reducing the crest factor of a multi-carrier signal, the method comprising:

(a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby generating a transformed multi-carrier signal;

(b) defining a signal-to-be-corrected to be the transformed multi-carrier signal;

(c) generating a simulated output signal by simulating an effect of a downstream filtering-and-interpolating system on the corrected output signal;

(d) estimating a signal maximum of the simulated output signal;

(e) deriving a first correction variable on the basis of the estimate;

(f) correcting the signal-to-be-corrected using at least the first correction variable, thereby generating a corrected output signal having a reduced crest factor;

(g) defining the corrected output signal to be the signal-to-be-corrected; and

(h) iteratively repeating steps (c) through (g) until the occurrence of a condition selected from the group consisting of causing the corrected output signal to have a crest factor below a predetermined threshold, and performing a predetermined number of iterations.

5. (Original) The method of claim **4**,

wherein correcting the signal-to-be-corrected comprises subtracting therefrom a correction signal formed by multiplying the first correction variable by a normalized impulse, thereby generating the corrected output signal;

6. (Original) The method of claim **5**, further comprising temporarily storing the corrected output signal.

7. (Original) The method of claim **4**, further comprising:

deriving a second correction variable from the estimate in the same iteration step in which the first correction variable is derived,

subtracting, from the signal-to-be-corrected, a value derived from the first and second correction variables, thereby generating the corrected output signal.

8 (Original) The method of claim **7**, further comprising temporarily storing the corrected output signal.

9. (Previously Presented) A method for reducing the crest factor of a multi-carrier signal, the method comprising:

(a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby generating a transformed multi-carrier signal;

(b) defining a signal-to-be-corrected to be the transformed multi-carrier signal;

(c) generating a simulated output signal;

(d) estimating a signal maximum of the simulated output signal;

(e) deriving a first correction variable on the basis of the estimate;

(f) correcting the signal-to-be-corrected using at least the first correction variable, thereby generating a corrected output signal having a reduced crest factor;

(g) defining the corrected output signal to be the signal-to-be-corrected; and

(h) iteratively repeating steps (c) through (g) until the occurrence of a condition selected from the group consisting of causing the corrected output signal to have a crest factor below a predetermined threshold, and performing a predetermined number of iterations;

the method further comprising reducing a bit width of the transformed multi-carrier signal.

10. (Original) The method of claim **4**, wherein the simulated signal comprises a plurality of sample values and deriving the correction variable comprises using a subset of the sample values.

11. (Previously Presented) A method for reducing the crest factor of a multi-carrier signal, the method comprising:

(a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby generating a transformed multi-carrier signal;

(b) defining a signal-to-be-corrected to be the transformed multi-carrier signal;

(c) generating a simulated output signal;

(d) estimating a signal maximum of the simulated output signal;

(e) deriving a first correction variable by identifying a particular sample point at which the estimate occurs;

(f) correcting the signal-to-be-corrected using at least the first correction variable, thereby generating a corrected output signal having a reduced crest factor;

(g) defining the corrected output signal to be the signal-to-be-corrected; and

(h) iteratively repeating steps (c) through (g) until the occurrence of a condition selected from the group consisting of causing the corrected output signal to have a crest factor below a predetermined threshold, and performing a predetermined number of iterations.

12. (Original) The method of claim **4**, wherein simulating an effect of a filtering-and-interpolating system comprises convolving a shortened impulse response of a filter and a reduced impulse response of an interpolator with the signal-to-be-corrected.

13. (Original) The method of claim **12**, further comprising:

selecting the shortened impulse response to be the first 20% of the sample values of the impulse response of the filter; and

selecting the reduced impulse response to be the central 60% of the sample values of the impulse response of the interpolator.

14. (Previously Presented) The method of claim **4**, further comprising passing the corrected output signal through a D/A converter.

15. (Currently Amended) A method for reducing the crest factor of a multi-carrier signal, the method comprising:

(a) evaluating an inverse Fourier transform of the multi-carrier signal, thereby generating a transformed multi-carrier signal;

(b) defining a signal-to-be-corrected to be the transformed multi-carrier signal;

(c) generating a simulated output signal by simulating ~~one of~~ either a high-pass filter followed by a low-pass filter, [[and]] or a fourth order IIR high pass filter and an FIR interpolation filter;

(d) estimating a signal maximum of the simulated output signal;

(e) deriving a first correction variable on the basis of the estimate;

(f) correcting the signal-to-be-corrected using at least the first correction variable, thereby generating a corrected output signal having a reduced crest factor;

(g) defining the corrected output signal to be the signal-to-be-corrected; and

(h) iteratively repeating steps (c) through (g) until the occurrence of a condition selected from the group consisting of causing the corrected output signal to have a crest factor below a predetermined threshold, and performing a predetermined number of iterations.

16. (Cancel)

17. (Previously Presented) The method of claim **4**,wherein the multi-carrier signal is selected from the group consisting of a DMT signal and an OFDM signal.